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UK Freeports

FREEPORT EAST
Felixstowe
Gateway 14
Harwich

A GLOBAL FREEPORT FOR A GLOBAL BRITAIN

EELGA Workshop

18th July 2024

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- About Freeport East
- The Green Freight Corridor initiative
- Workshop questions

About Freeport East (1)

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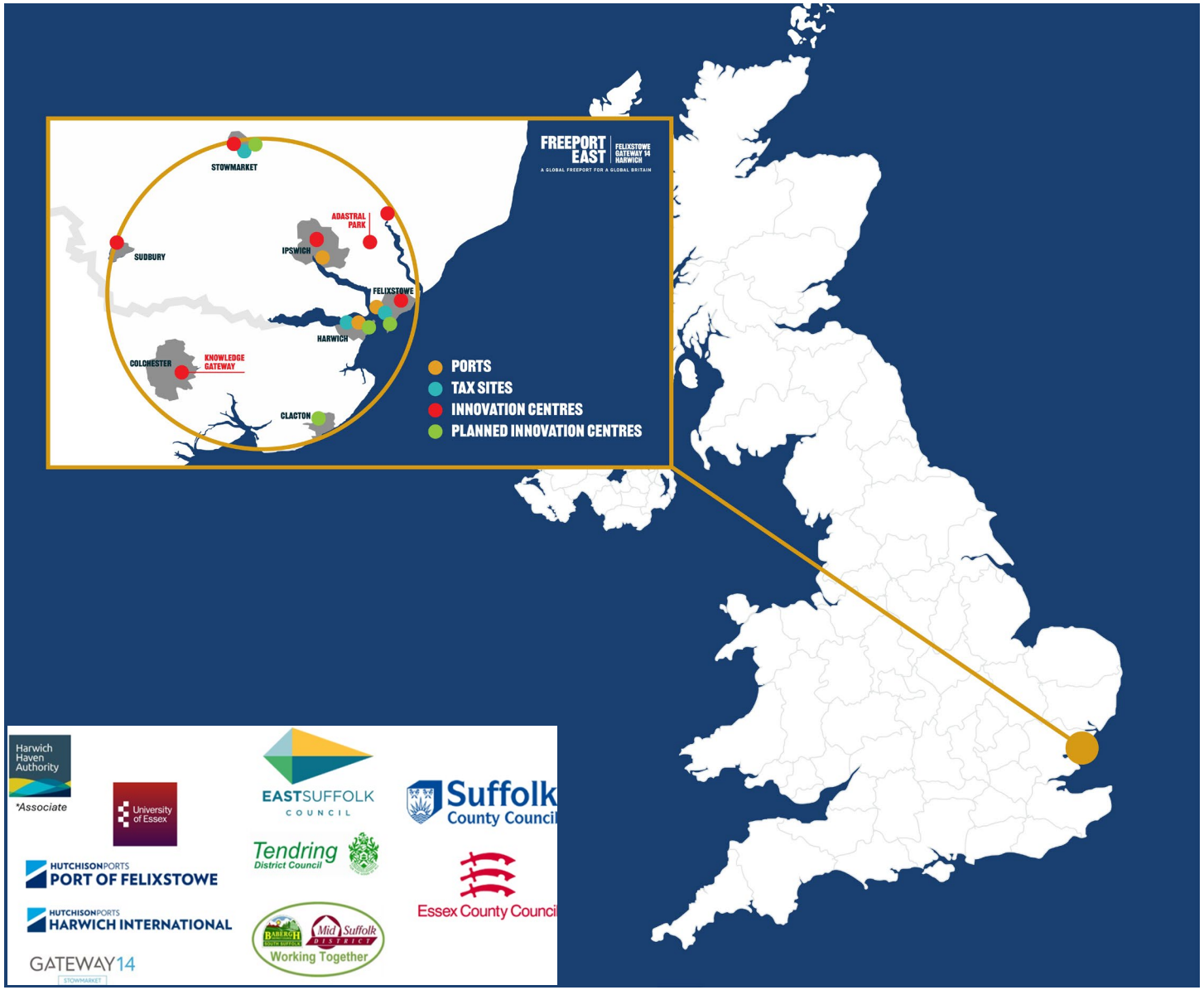

- Freeport East is a public-private partnership
- Freeport East Ltd acts as counterparty to Government to deliver freeport policy
- Formed in 2022 with HQ in Harwich
- We bring together ports, Universities, innovation centres, research institutes, innovative SMEs and major international companies, together with national, regional and local Government
- Freeport area covers over 1000sqkm in total
- 3 specific development sites with tax reliefs (Harwich, Felixstowe and Stowmarket)
- £300m+ of business rate income over 25 years
- Offshore Wind and Green Hydrogen are key focus sectors, alongside other clean energy & maritime/trade-related opportunities
- We aim to work with ambitious UK and international businesses looking to grow their footprint in the UK……

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About Freeport East (2)

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Using freeport funds to support growth……

- Felixstowe tax site remediation & grid connection
- Gateway 14 Skills & Innovation Centre
- Clean Growth Fund
- Skills & Innovation Fund

Strategic Initiatives to enable investment…….

- Green Hydrogen Hub
- Green Freight Corridor (with East Midlands FP)
- Bathside Bay development
- Local Energy Plan (REA/UKPN)

Private sector investment to bring jobs and new opportunities……..

- Assan Panel (Stowmarket)
- Rux Energy (Harwich)
- Scottish Power (Felixstowe)
- Bauder (Ipswich & Stowmarket)

International partnerships to open doors to trade…….

- Turkey
- India
- Australia
- Japan

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Our Net Zero & Climate Resilience Initiatives

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Our Green Hydrogen Hub (1)

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Green Hydrogen Hub (2)

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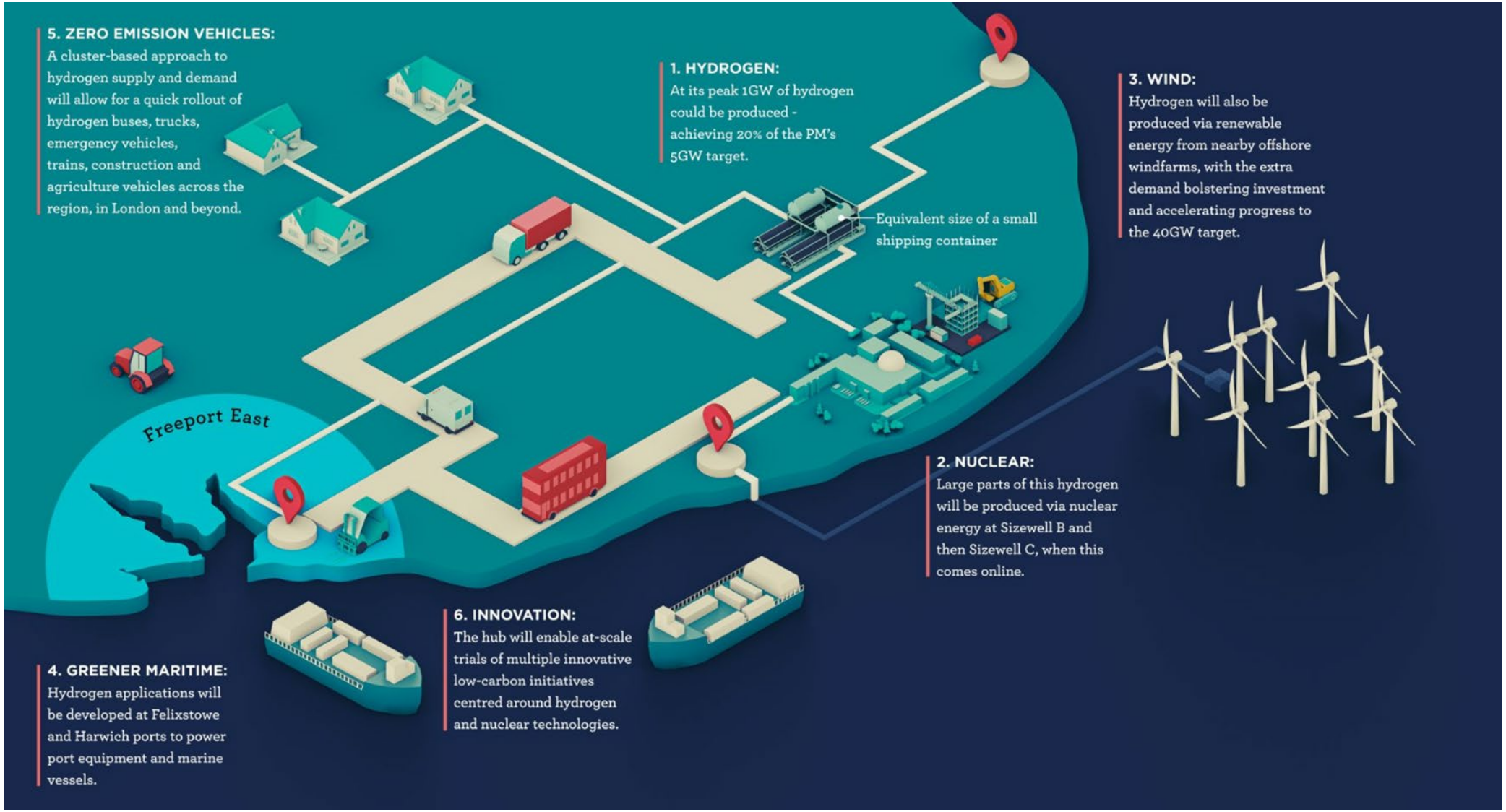

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Local Area Energy Plan

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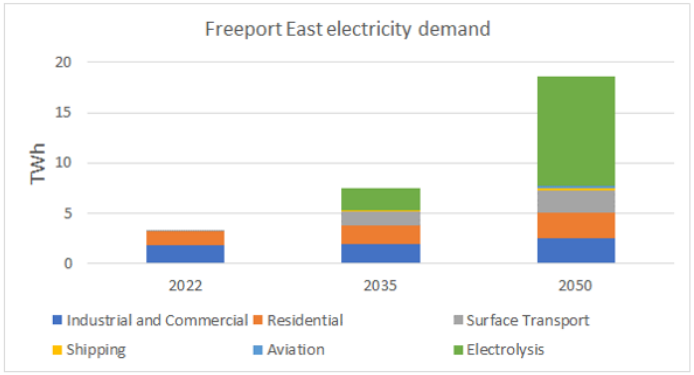
- Forecast up to 6-fold increase in power demand in Freeport East area
- Requires additional grid investment that is not forecast in current plans – c. 200MW already looking to connect
- UKPN engaged in next steps on local energy plan to highlight locations of growth and investment required

Transport Decarbonisation: Electricity demand



- Alongside electrification of transport, growth in electrolyser capacity will add significant electricity demand.
- Analysis by PA Consulting suggests that an additional 500MW of electrolyser capacity could be added by 2035 and 2.5GW by 2050.
- Electricity demand could increase six- fold between 2022 and 2050
- Electricity networks will need to be significantly enhanced
- Flexible electrolyser capacity gives an opportunity to soak up low carbon electricity that may otherwise be curtailed, and provide grid flexibility

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Key Challenges to Achieve Net Zero

Surface

Behaviour change: Significant reduction in demand will require large-scale modal shift from private to shared/public transport and active travel

Refuelling infrastructure: The use of battery electric and hydrogen fuel cell vehicles requires the development of new refuelling infrastructure

Cost: The technologies required to decarbonise surface transport are well understood, but are often costly, particularly for rail electrification and electric/hydrogen heavy road vehicles

Marine

"Green" hydrogen production: Hydrogen needed to be produced at commercial scale, created using renewable electricity via electrolysis

Sustainable fuel storage: Shore-side fuel stores need to be equipped to store and dispense fuels such as hydrogen and ammonia

Shore-side electrification: High-power shore-side electricity connections required to power ships when in port, and recharge battery electric vessels

Aviation

Sustainable fuel production: Emission reductions in aviation only thought to be deliverable by sustainable fuels, which would need to be produced at commercial scale

Sustainable fuel storage: For fuels such as hydrogen, new fuel storage infrastructure will be required

Controlling demand: Demand for air travel is assumed to be capped by increased travel taxes or more efficient aircraft fleets

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Recommendations

- To support transport decarbonisation and economic growth in Freeport East, a significant energy transition is required
- We recommend the following strategic themes are pursued:
  - **An integrated energy resource plan** – creating an integrated Freeport East local energy plan, mapping out future energy demand and supply resource,; ensuring co-ordination with National and Regional whole system energy plans.
  - **Enhance electricity resources** – identification of investment needed in electricity network capacity, customer electricity infrastructure and associated public infrastructure such as electric vehicle charging points.
  - **Enable hydrogen production** – identification of investment needed in hydrogen electrolysers and associated transport fuels, fuel storage and transport infrastructure, and associated public infrastructure such as hydrogen vehicle refuelling stations.
  - **Enable financing solutions –** develop investment priorities and business cases to enable the provision of finance from a range of public and private sector finance providers.

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Bathside Bay Development

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15 MAY 2024

Freeport East declares significant milestone for UK offshore wind port investment as approval given for Bathside Bay Green Energy Hub

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The Bathside Bay Project

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26 MARCH 2024

New 100 hectare Wildlife Sanctuary to support Bathside Bay port expansion project

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The Freeport East & East Midlands Freeport
“Green Corridor Initiative”

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Green Freight Corridor Initiative

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"Freeport East and East Midlands Freeport sign green freight corridor initiative"

- Freeport East and East Midlands Freeport have announced a new partnership to support a green freight corridor between our locations
- The corridor initiative will help decarbonise transport and drive enhanced skills and employment initiatives along the length of one of the UK's most important transportation routes.
- Working together, we aim to accelerate the technologies, business models, innovation and infrastructure needed to drive decarbonisation by utilising green hydrogen, electric charging systems and novel technology applications, such as digital twins.

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Green Freight Corridor Initiative

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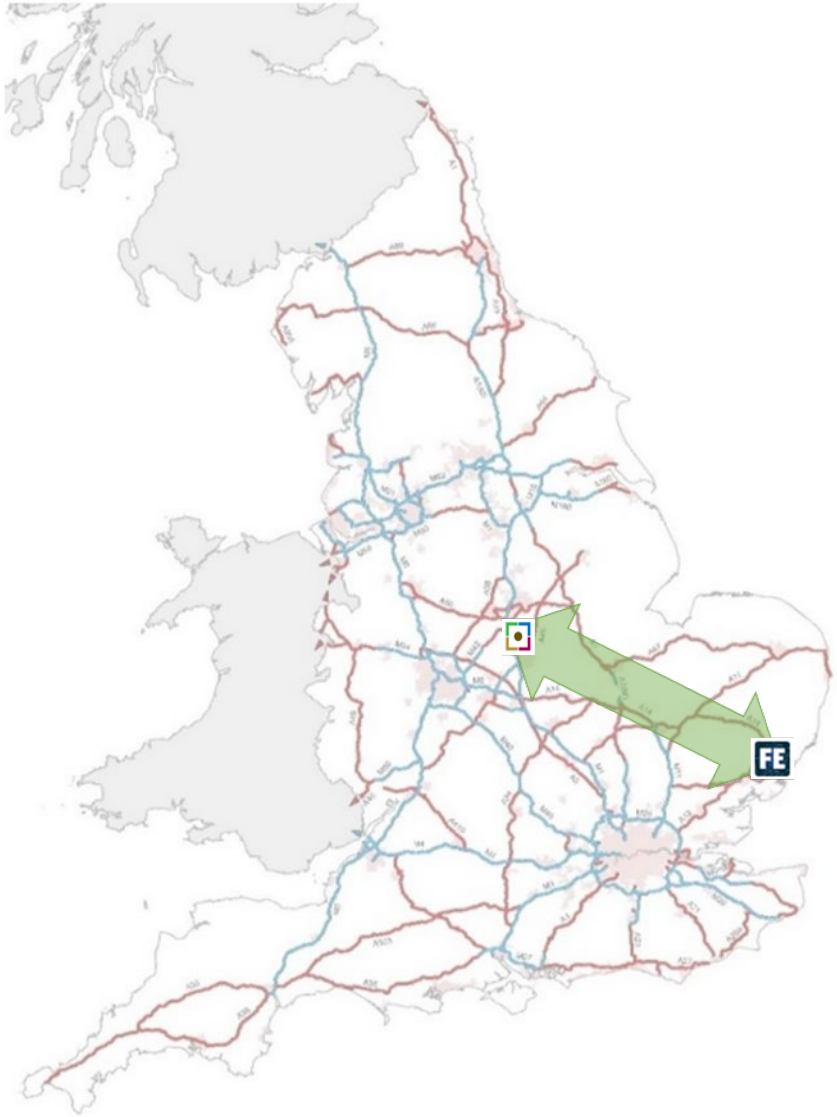

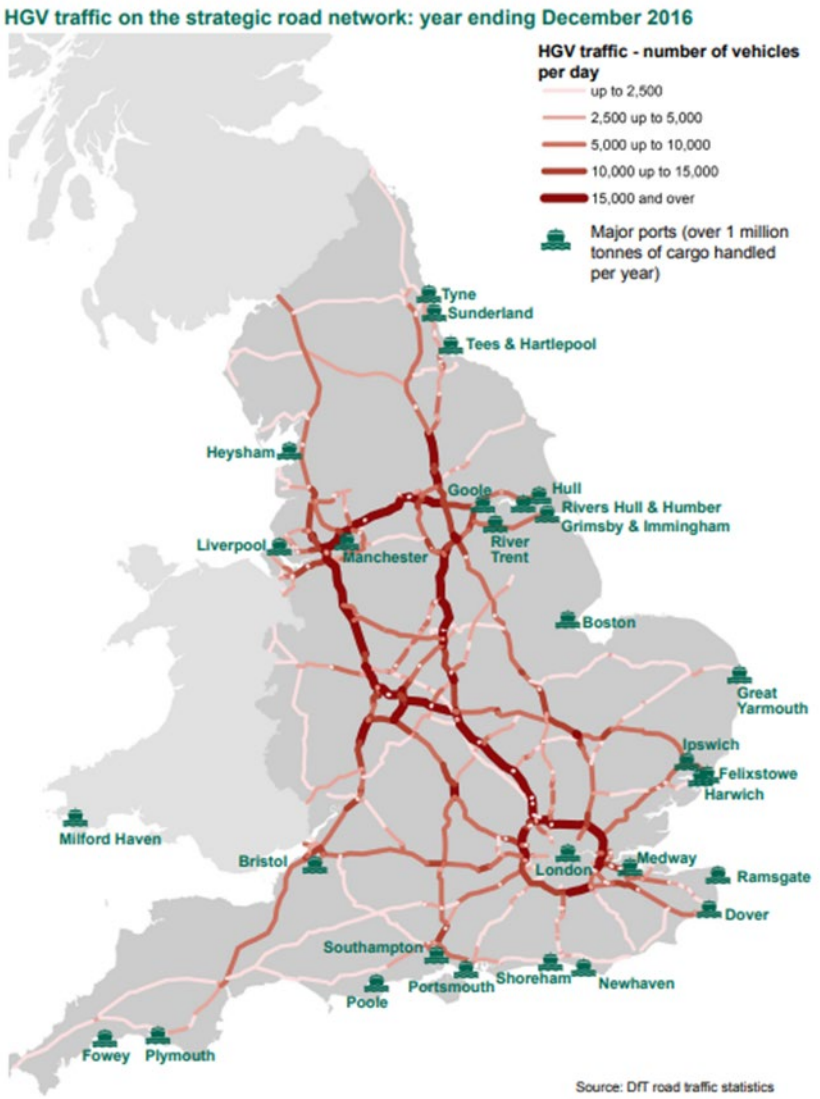

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What will success look like?

1. An increase by [50%] in railfreight volumes along the Green Freight Corridor
2. At least [20%] of all roadfreight on the corridor being zero emission by 2030
3. At least [10] new HGV refuelling options along the length of the corridor
4. A net decrease in total HGV movements along the corridor of [XX%] by 2030
5. At least one section of the green corridor subject to a biodiversity and local transport corridor initiative by 2026
6. Plus skills alignment, application of new innovative technologies, increase in innovation grant funding and dedicated programming

*Note that all target delivery metrics are purely indicative for discussion and subject to ongoing assessment exercise

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Workshop Questions

1. What the full range of enablers and opportunities that can deliver the objectives of the green freight corridor and maximise its benefits? (15 minutes) (All)
2. Who are the partners that can drive success, alongside EMFP and FPE? What role can the public sector best play, e.g. in terms of procurement processes(10 minutes) (2 groups)
3. What are the sources of funding and private sector investment that we could target? What are the commercial opportunities for business to engage with and how do we best communicate those? (10 minutes) (2 groups)